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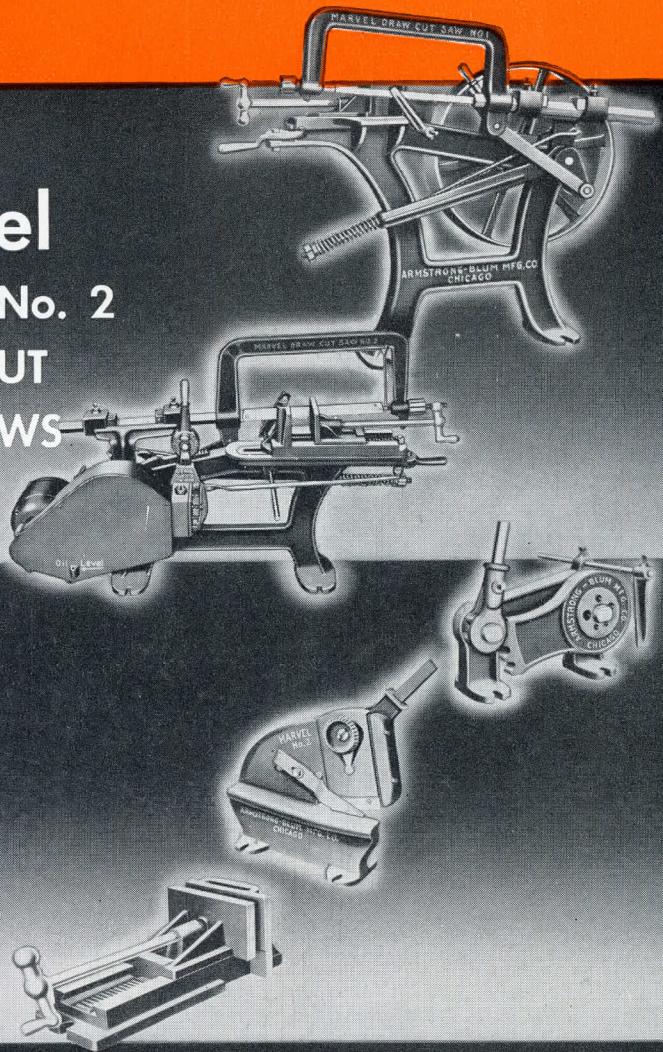
# ARMSTRONG-BLUM MFG. CO.

5700-5800 W. Bloomingdale Avenue

Chicago 39, Illinois, U.S.A.

Marvel  
No. 1 AND No. 2  
DRAW CUT  
HACK SAWS

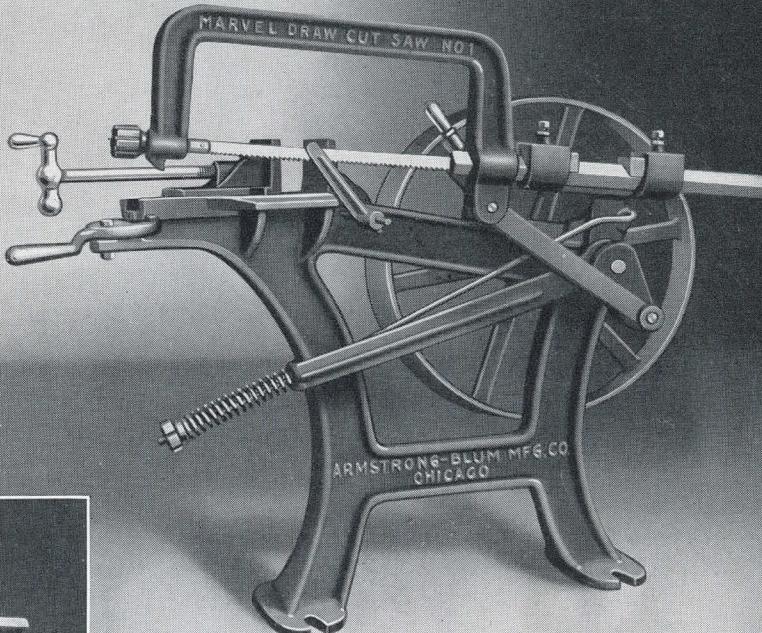
Marvel  
ROD CUTTERS  
SHEARS  
DRILL PRESS VISSES



HIGH-SPEED-EDGE HACK SAW BLADES  
HIGH-SPEED-EDGE HOLE SAWS  
METAL CUTTING BAND SAW BLADES  
HEAVY DUTY HAND HACK SAW FRAME

# MARVEL Draw Cut Hack Saw Machines

## No. 1 DRAW CUT HACK SAW



Model No. 1 Belt Driven—Capacity 4" x 4"

### No. 1 DRAW CUT HACK SAW

MARVEL Draw Cut Hack Saw Machines, Models No. 1 and 1/M1, are the ideal cutting-off tools for any small machine shop or shop department performing an occasional sawing job. The machines are dry cutting, sturdily built, and employ no more moving parts than are necessary for efficiency. They are easy to operate, are long lived, and low in original, maintenance, and blade cost.

### FEATURES

All worthwhile features of power hack sawing machines are incorporated in the design of these universally used MARVELS and they have earned the qualification of "indispensable" in practically every installation through their dependable, economical, and invaluable service. Features of construction and specifications are listed below and on the opposite page.

**DRY CUTTING**—Capable of utilizing High Speed Hack Saw Blades, these saws need no coolant system, pump, tank, piping, etc., with the resulting need for service, priming of pump, and cleaning of tank, which is inevitable when the machine is not in frequent use.

**FEED**—A cam-actuated compression spring and tension rod alternately apply feed pressure during cutting stroke and relieve pressure during return stroke.

**SAW FRAME**—A finished square bar set on the quarter forms the saw frame slide. This operates in V-bearings with adjustable caps, permitting unlimited take-up for wear.

**VISE**—A quick-action screw and ratchet type. Work is quickly clucked by sliding the jaw up to the work and tightening the screw one or two turns. The vise on the No. 2 can swivel to cut at an angle up to 45°.

**STROKE**—The No. 2 saw is equipped with an adjustable crank which permits the stroke to be shortened to accommodate work up to 8" in diameter.

**CONTROLS**—Start and stop lever and feed pressure control are conveniently located at the front of the machine. Automatic stop at completion of cut is provided on belt driven machines by disengagement of clutch, and on motor driven machines by stopping of motor.

**BRONZE BEARING**—Drive shaft runs in an unusually long bronze bearing equipped with a liberal oil trough.

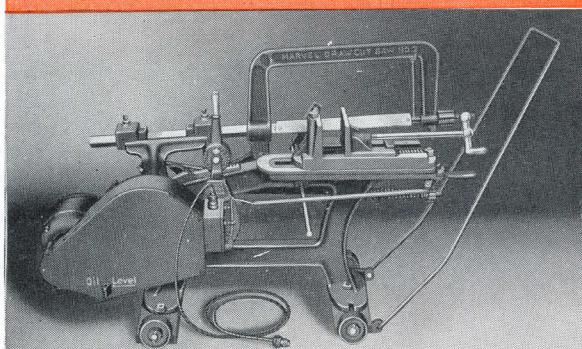
Model No. 1/M1 Motor Driven—Capacity 4" x 4"

### PORTABLE TRUCK AVAILABLE

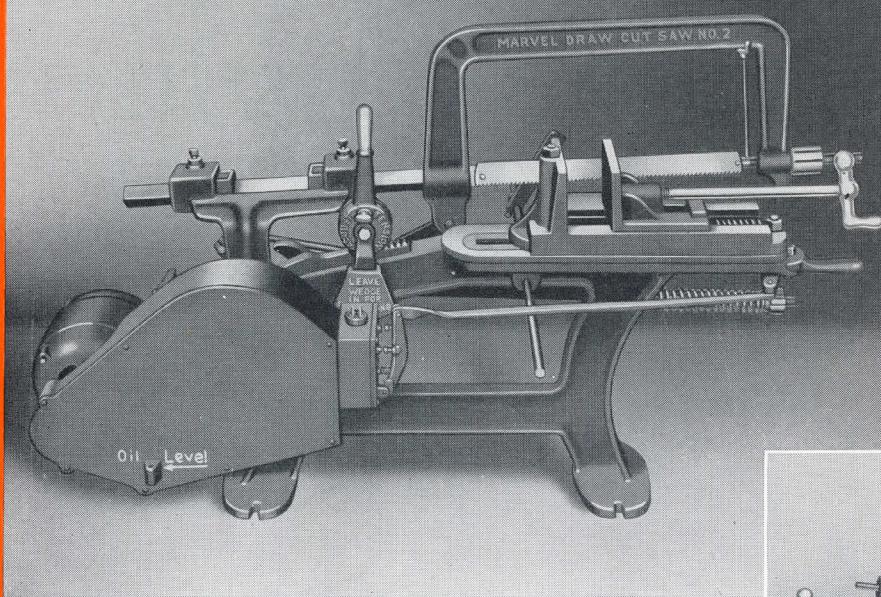
Rugged, all-metal construction with turn-table at front. A saw so equipped can be easily moved about a plant and connected to power outlet by means of extension cord. Saws arranged for 110 volt, single phase current are regularly furnished with 15 ft. extension cord. Shipping weight 50 pounds.

Model No. 2/M1/E1 illustrated

MARVEL No. 2 Motor Driven machine mounted on portable truck



# The Ideal Dry Cutting Shop Saws



Model No. 2/M1 Motor Driven  
Capacity 6" x 6" on long stroke  
8" x 8" on short stroke

## No. 2 DRAW CUT HACK SAW

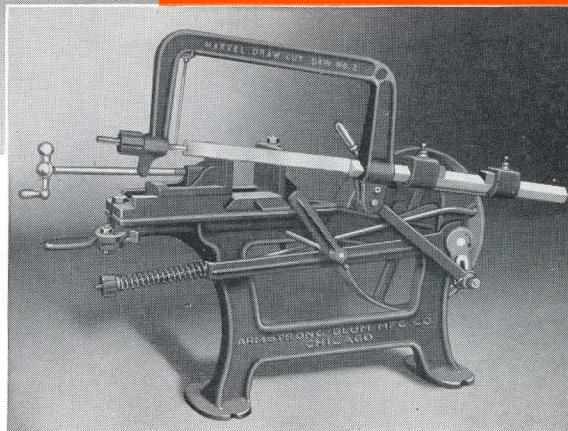
Companion to the No. 1 saw but with a normal capacity of 6" x 6" which can be increased to 8" x 8" by shortening the stroke with adjustable crank. The No. 2 MARVEL also has a swivel vise which is removable from the "T" slotted bed, permitting special fixtures to be mounted. Both Model No. 1 and Model No. 2 are available in belt and motor drives.

## SPECIFICATIONS

Machine Model	No. 1 Belt Drive	No. 1/M1 Motor Drive	No. 2 Belt Drive	No. 2/M1 Motor Drive
Nominal Capacity.....	4" x 4"	4" x 4"	6" x 6"	6" x 6"
Maximum Cap., normal stroke—				
round.....	4 3/4"	4 3/4"	6 5/8"	6 5/8"
square.....	4 1/8"	4 1/8"	6 1/4"	6 1/4"
Maximum Cap., short stroke—				
round.....	.....	.....	8"	8"
square.....	.....	.....	7 1/4"	7 1/4"
Blade Length.....	12"	12"	12" to 17"	12" to 17"
Height, vise above floor...	19"	19"	19"	19"
Height, overall, maximum..	32"	32"	40"	40"
Floor Space required.....	15" x 38"	13" x 35"	19" x 55"	17" x 58"
Speed (Strokes per minute).	60 to 90	80	50 to 70	65
Size of Pulley.....	18" x 3 1/4"	.....	20" x 3 1/2"	.....
Motor, H.P.....	.....	1/4	.....	1/2
R.P.M.....	.....	1800	.....	1800
Shipping wt., crated (pounds).....	140	225	300	450

No. 2

## DRAW CUT HACK SAW



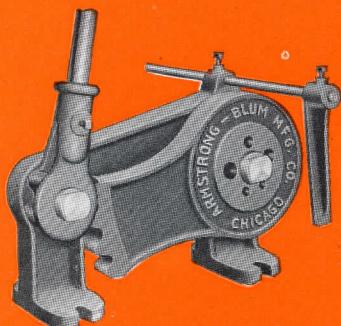
Model No. 2 Belt Driven  
Capacity 6" x 6" on long stroke  
8" x 8" on short stroke

The MARVEL Draw Cut Hack Saw Machines, illustrated on these pages, are by far the most popular dry cutting saws in America. 80% of all dry cutting Shop Saws in use are MARVELS. In addition to manufacturing these relatively simple and low priced Hack Sawing Machines, we are probably better known as builders of our complete line of MARVEL High Speed and Automatic Bar-Feed Hack Sawing Machines and Universal Band Sawing Machines.

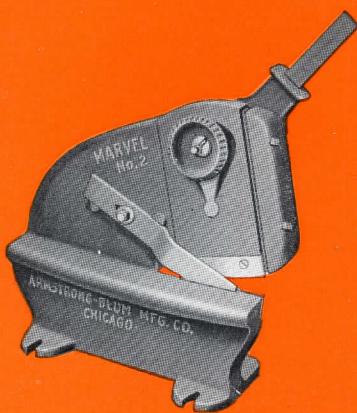
For brief descriptions and illustrations on additional MARVEL Sawing Machines, refer to page 8 of this bulletin.

For best results, always use MARVEL High-Speed-Edge Hack Saw Blades.

# Rod Cutters • Splitting Shears • Drill Press Vises



Model	Will cut Round Rods (dia.)	Weight, lbs.
No. 5	3/8, 5/16, 1/4, 3/16, 1/8	15
No. 6	5/8, 9/16, 1/2, 7/16, 9/16	45
No. 7	7/8, 3/4, 5/8, 1/2, 3/8	110



Model	No. 1	No. 2
Capacity (mild steel)	1/8"	1/4"
Length of shear blade	4"	6"
Length of lever	30"	54"
Shipping Weight, Pounds	65	225



Model	No. 40	No. 41
Opening Capacity	5"	8"
Width of Jaws	5 5/8"	7"
Height of Jaws	2 1/2"	4"
Overall Length	12 1/2"	17 1/2"
Overall Width	5 5/8"	7"
Overall Height	4 1/4"	6"
Weight (pounds)	24	56
Shipping weight (pounds)	30	65

## Rod Cutters

These simple, hand powered tools conveniently and rapidly cut off round bars, rods or wire with a single stroke of the lever.

The work is passed through one of five openings in a pair of matched tool steel blades. One blade is held stationary in the body of the cutter and the work is sheared off by rotating the other blade about a center pivot pin with a very powerful compound lever. As the openings in the cutter blades just fit the work, the cut ends are not distorted but remain round and true.

Blades are high grade, heat treated tool steel and are exceptionally long lived but can easily be replaced when worn out.

An adjustable length gauge is furnished for convenience in cutting duplicate pieces.

The No. 7 Rod Cutter can be furnished with 18" heavy iron legs. Shipping weight, with legs, 180 pounds.

## Splitting Shears

Flat steel plates and bars are cut off, split and trimmed very conveniently and economically with these sturdy well built tools. Two sizes are available: the No. 1 for mild steel sheets and small bars up to  $\frac{1}{8}$ " thick and the No. 2 for similar material up to  $\frac{1}{4}$ " thick.

The shear blade is carried on a sliding block which is forced down by an eccentric driven by the hand lever. The No. 2 shear has the additional advantage of an adjustable eccentric combined with a toggle and can be changed for high or low power by simply shifting a small pin. The machine is, therefore, equally efficient for cutting either light or heavy work.

Both machines are equipped with an adjustable stripper.

The shear slide moves in V-ways fitted with an adjustable gib to take up for wear. Shear blades are easily removed for regrinding or replacement.

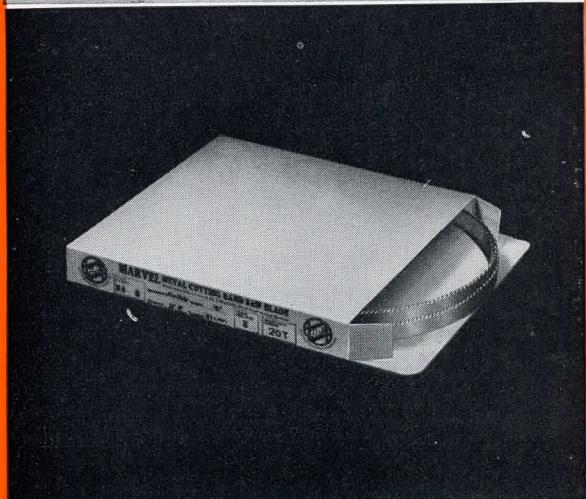
The No. 2 shear can be furnished with 18" heavy iron legs when specified. Shipping weight with legs is 360 pounds.

## Drill Press Vises

These are a very practical and convenient shop accessories used for holding work on drill presses, milling machines and shapers.

The sliding jaw is quick action screw and ratchet type for quick, easy chucking. The complete vise is machine finished, parallel and square on all sides and can be used on either side as well as the bottom. A bolt notch is provided at each end and an extended strip around the entire edge can be used for clamping the vise to the machine bed. An elongated slot running through the fixed jaw is useful for attaching drill bushings or bolting down the vise itself. Both jaws extend beyond the vise body at one side so that long pieces can be held vertically. An outstanding feature is the unusual arrangement of the dovetailed sliding jaw and the ratchet nut which utilizes the clamping pressure of the vise to tighten the jaw in the dovetail. This takes up wear and squares the jaw, insuring parallel jaw faces even when work is held at the extreme edges.

# MARVEL Metal Cutting Band Saw Blades



For top performance from any band saw machine, regardless of make, specify MARVEL Metal Cutting Band Saw Blades.

For simplicity in ordering, ease of identification before and after delivery, protected compact storage, elimination of loss by rust, and minimum stocks through interchangeability, specify MARVEL Metal Cutting Band Saw Blades. These blades are ready for use when shipped; they are welded endless, coiled, identified, individually boxed, and packed ten boxes in a carton.

All popular metal band saw machines are listed, and opposite each name is shown the size, tooth pitch, stock number, and list price of the standard MARVEL blade available for each machine. Great care has been taken to determine standard lengths of blades. Machine manufacturers' specified blade lengths may vary from our specifications. However, we guarantee that standard MARVEL Band Saw Blades will fit the respective machines listed below.

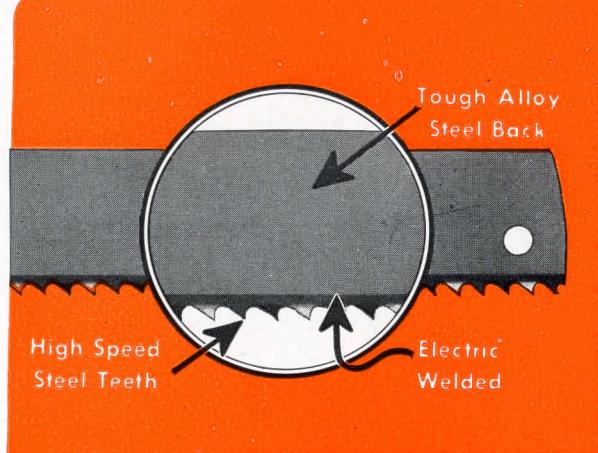
Standardizing and assigning stock numbers to MARVEL Band Saw Blades assure the user faster, more dependable delivery. It is no longer necessary to place an order by length, thickness, temper, etc. Simply refer to the table below and order by stock number.

## STOCK SIZES and LIST PRICES

Machine	Length, Welded Endless	Width	Gauge	List Price (Each)	Stock Numbers						
					Pitch (Teeth per Inch)						
					6	8	10	12	14	18	24
Atkins No. 3	15'- 8"	3/4"	.032"	\$3.67	B9-6	B9-8	B9-10	B9-12	B9-14		
Atkins No. 4	14'- 1"	3/4"	.032"	3.29	A4-6	A4-8	A4-10	A4-12	A4-14		
Avey Milband	14'- 9"	1"	.035"	4.20	AM-6	AM-8	AM-10			AM-14	
Clark Compound	15'- 6"	1"	.035"	4.44	CC-6	CC-8	CC-10			CC-14	
Delta 14	7'- 9"	1/2"	.025"	1.69	D4-6		D4-10		D4-14	D4-18	D4-24
H & R 6"	12'- 6"	3/4"	.032"	3.10	R6-6	R6-8	R6-10	R6-12	R6-14		
H & R 9"	13'- 0"	3/4"	.032"	3.10	R9-6	R9-8	R9-10	R9-12	R9-14		
H & R 12"	15'- 8"	3/4"	.032"	3.67	B9-6	B9-8	B9-10	B9-12	B9-14		
Johnson	11'- 5"	3/4"	.032"	2.71	J-6	J-8	J-10	J-12	J-14		
Kalamazoo Standard	10'- 5"	3/4"	.032"	2.52	KA-6	KA-8	KA-10	KA-12	KA-14		
Kalamazoo Ex. Size	12'- 1"	3/4"	.032"	2.90	KX-6	KX-8	KX-10	KX-12	KX-14		
Klemm No. 1	11'- 2"	3/4"	.032"	2.71	K1-6	K1-8	K1-10	K1-12	K1-14		
Klemm No. 2	15'- 8"	3/4"	.032"	3.67	B9-6	B9-8	B9-10	B9-12	B9-14		
<b>MARVEL No. 8 Standard</b>	<b>14'- 8"</b>	<b>3/4"</b>	<b>.032"</b>	<b>3.48</b>	<b>B8-6</b>	<b>B8-8</b>	<b>B8-10</b>	<b>B8-12</b>	<b>B8-14</b>		
<b>MARVEL No. 8 High Col.</b>	<b>15'- 8"</b>	<b>3/4"</b>	<b>.032"</b>	<b>3.67</b>	<b>B9-6</b>	<b>B9-8</b>	<b>B9-10</b>	<b>B9-12</b>	<b>B9-14</b>		
Milclark	10'-10"	3/4"	.032"	2.71	MC-6	MC-8	MC-10	MC-12	MC-14		
Napier	12'- 3"	1"	.035"	3.48	NI-6	NI-8	NI-10		NI-14		
Napier, Jr.	8'- 4"	3/4"	.032"	2.14	NJ-6	NJ-8	NJ-10	NJ-12	NJ-14		
Racine	7'- 9"	1/2"	.025"	1.69	D4-6		D4-10		D4-14	D4-18	D4-24
Thompson	15'- 8"	3/4"	.032"	3.67	B9-6	B9-8	B9-10	B9-12	B9-14		
Thompson Milband	12'-11"	3/4"	.032"	3.10	TM-6	TM-8	TM-10	TM-12	TM-14		
Walker Turner 14"	8'- 1"	1/2"	.025"	1.69	W4-6		W4-10		W4-14	W4-18	W4-24
Walker Turner 16"	9'- 7"	1/2"	.025"	1.96	W6-6		W6-10		W6-14	W6-18	W6-24
Wells No. 5	8'-2 1/2"	1/2"	.025"	1.69	W5-6		W5-10		W5-14	W5-18	W5-24
Wells No. 8	11'- 7"	3/4"	.032"	2.90	W8-6	W8-8	W8-10	W8-12	W8-14		
Wright	15'- 8"	3/4"	.032"	3.67	B9-6	B9-8	B9-10	B9-12	B9-14		

NOTE: All items on this page are priced in units and packed in standard packages of ten. List Prices are subject to trade and quantity discounts.

# MARVEL High-Speed-Edge Hack Saw Blades



MARVEL blades have been designed with full recognition of the work a hack saw blade must do—cut fast and straight. To do this, a hack saw blade must have those qualities that permit high speed without burning and high feed pressure without excessive deflection or breakage.

No one tool steel or alloy has the properties necessary to meet these two requirements. High speed steel is excellent for fast cutting but is, of necessity, hard and brittle—certainly not a good material for heavy loading. On the other hand none of the alloys that have been developed particularly to withstand heavy loading are suitable for use as a cutting tool.

MARVEL blades are a welded combination of the two materials best suited to the requirement of an efficient hack saw blade. A narrow high speed steel cutting edge is welded to a tough alloy steel body and the highest physical characteristics of both developed by a carefully controlled heat treatment.

MARVEL "high-speed-edge" hack saw blades need no "babying" and can be safely subjected to the high speeds and heavy feeds so necessary to secure the high efficiency that a buyer of high speed tools has a right to expect.

Blades can be tensioned *tight* (as they must be) feed pressure can be heavy and speeds fast (as they should be) without hazard to either the operator or the blade.

High Speed Steel does the cutting—a tough strong alloy carries the load. Only MARVEL High-Speed-Edge Hack Saw Blades offer this ideal and efficient combination.

MARVEL

HIGH-SPEED-EDGE  
ARMSTRONG-BLUM  
MFG. CO. CHICAGO, U.S.A.

## STOCK SIZES and LIST PRICES

Stock No.	Catalog Length (Inches)	Catalog Width (Inches)	Thickness (Inches)	Teeth Per Inch	Pinhole Diameter (Inches)	Pinhole Centers (Inches)	Over-all Length (Inches)	Approximate Shipping Wt. 100 Blades (Pounds)	List Price Per BLADE	Stock No.
1214-N	12	5/8	.032	14	3/16	11 7/8	12 1/2	7	\$.75	1214-N
1218-N	12	5/8	.032	18	3/16	11 7/8	12 1/2	7	\$.75	1218-N
1210	12	1	.065	10	3/32	11 7/8	12 3/4	24	1.20	1210
1214	12	1	.049	14	3/32	11 7/8	12 3/4	19	1.20	1214
1410	14	1	.065	10	3/32	13 1/2	14 9/16	28	\$1.40	1410
1410-L	14	1	.049	10	3/32	13 1/2	14 9/16	21	1.40	1410-L
1414	14	1	.049	14	3/32	13 1/2	14 9/16	21	1.40	1414
1404-W	14	1 1/4	.065	4	3/32	13 1/2	14 1/2	36	1.75	1404-W
1406-W	14	1 1/4	.065	6	3/32	13 1/2	14 1/2	35	1.75	1406-W
1410-W	14	1 1/4	.065	10	3/32	13 1/2	14 1/2	35	1.75	1410-W
1404-H	14	1 1/2	.072	4	3/32	13 1/2	14 1/2	44	2.31	1404-H
1406-H	14	1 1/2	.072	6	3/32	13 1/2	14 1/2	44	2.31	1406-H
1710	17	1	.065	10	3/32	16 1/2	17 3/8	33	\$1.70	1710
1714	17	1	.049	14	3/32	16 1/2	17 3/8	26	1.70	1714
1704-W	17	1 1/4	.065	4	3/32	16 1/2	17 1/2	43	2.12 1/2	1704-W
1706-W	17	1 1/4	.065	6	3/32	16 1/2	17 1/2	43	2.12 1/2	1706-W
1710-W	17	1 1/4	.065	10	3/32	16 1/2	17 1/2	43	2.12 1/2	1710-W
1810	18	1	.065	10	3/32	17 1/2	18 9/16	35	\$1.80	1810
1804-W	18	1 1/4	.065	4	3/32	17 1/2	18 1/2	45	2.25	1804-W
1806-W	18	1 1/4	.065	6	3/32	17 1/2	18 1/2	45	2.25	1806-W
1810-W	18	1 1/4	.065	10	3/32	17 1/2	18 1/2	45	2.25	1810-W
1804-H	18	1 1/2	.072	4	3/32	17 1/2	18 1/2	59	2.97	1804-H
1806-H	18	1 1/2	.072	6	3/32	17 1/2	18 1/2	59	2.97	1806-H
1804-HW	18	2	.072	4	3/32	17 1/2	18 3/4	80	3.96	1804-HW
1806-HW	18	2	.072	6	3/32	17 1/2	18 3/4	80	3.96	1806-HW
2104-H	21	2	.072	4	3/32	21	22 1/4	93	\$4.62	2104-H
2106-H	21	2	.072	6	3/32	21	22 1/4	93	4.62	2106-H
2104-CS	21	2	.100	4	3/32	21	22 1/4	130	6.30	2104-CS
2404-H	24	2	.072	4	3/32	24	25 1/4	110	\$5.28	2404-H
2406-H	24	2	.072	6	3/32	24	25 1/4	110	5.28	2406-H
2404-C	24	2	.100	4	25/64	24	25 1/4	148	7.20	2404-C
2404-CS	24	2	.100	4	3/32	24	25 1/4	148	7.20	2404-CS
3004-C	30	2 1/2	.100	4	25/64	30	32	185	\$11.25	3004-C
3625-E	36	4 1/2	.125	2 1/2	1/2	36	38	600	\$27.50	3625-E

Note that sizes No. 2404-C and No. 2404-CS are identical except for diameter of pinholes; therefore, be sure to order correct stock number for size of pinhole desired, as we will henceforth manufacture both stock numbers 2404-C and 2404-CS. We strongly recommend the larger pinhole (stock No. 2404-C), if it is possible for you to equip your machines using 24 inch blades with blade-holders having 3/8" diameter pins; but the blade with the smaller pinhole (stock No. 2404-CS) must be used with blade holders having only 1/4 inch or 3/32 inch pins.

With the exception of blades wider than 2 inches, over-all width slightly exceeds catalog width, in all stock numbers.

To simplify ordering, specify stock number only. Since all MARVEL High-Speed-Edge Hack Saw Blades are priced in units and packed in standard packages of ten blades (instead of by dozens and gross), please specify quantities in multiples of tens or hundreds; you will find the unit method most convenient in your own accounting.

# MARVEL Heavy Duty Hand Hack Saw Frame

## Now Again Available!

The MARVEL Heavy Duty Hack Saw Frame was developed prior to the national emergency. Thousands were sold before all aluminum was needed for the production of vital war materials. Reports from satisfied users unmistakably prove that the MARVEL Saw Frame answered a long felt need for a "correctly designed" Saw Frame which permits the full utilization of high speed steel hack saw blades, automatically eliminates "sticking" of blade in cut, and thus practically does away with blade and tooth breakage.

Check the seven exclusive features of superiority listed below:

1. Main Frame is one piece hot-forged, heat-treated aluminum alloy, highly polished.
2. Unusually strong and indestructible, yet light in weight.
3. Automatic clamping blade holders hold blade always rigid and square.
4. Convenient chrome-plated all-metal handle. Novel left-hand thumb guard removes danger of injury.
5. Blade can be rotated to face in any of eight positions without removing blade from clamping holders, and hand-grips rotate with blade.
6. Solid, non-adjustable, exceptionally rugged.
7. Furnished with one No. 1218-N MARVEL High-Speed-Edge Heavy Duty Unbreakable Hack Saw Blade.



5. Blade can be rotated to face in any of eight positions without removing blade from clamping holders, and hand-grips rotate with blade.

6. Solid, non-adjustable, exceptionally rugged.

7. Furnished with one No. 1218-N MARVEL High-Speed-Edge Heavy Duty Unbreakable Hack Saw Blade.

### SPECIFICATIONS

Stock No.	Blade Length	Depth of Throat	Weight, Pounds	List Price, Each
12	12"	4½"	4	\$15.00

# MARVEL High-Speed-Edge Hole Saws

### SPECIFICATIONS

Stock No.	Saw Diam. (Inches)	Price (Each)	Use Arbor No.	Use for Pipe Entrance, Pipe Size	Use for Pipe Top, Pipe Size
10	5/8	\$ 3.00	1		
12	3/4	3.00	1		
14	7/8	3.00	1		
16	1	3.00	1		
17	1 1/16	3.00	1		
18	1 1/8	3.00	1		
20	1 1/4	\$ 3.00	2 or 3		
22	1 3/8	3.00	2 or 3		
24	1 1/2	3.00	2 or 3		
26	1 5/8	3.00	2 or 3		
28	1 3/4	4.00	2 or 3		
30	1 7/8	\$ 4.00	2 or 3		
32	2	4.00	2 or 3		
33	2 1/16	5.30	2 or 3		
34	2 1/8	5.30	2 or 3		
36	2 1/4	5.30	2 or 3		
38	2 5/8	5.30	2 or 3		
40	2 1/2	\$ 5.30	2 or 3		
41	2 9/16	5.30	2 or 3		
42	2 5/8	5.30	2 or 3		
44	2 3/4	5.30	2 or 3		
46	2 7/8	5.30	2 or 3		
48	3	5.30	2 or 3		
50	3 1/8	\$ 5.30	2 or 3		
52	3 1/4	5.30	2 or 3		
54	3 3/8	5.30	2 or 3		
56	3 1/2	5.30	2 or 3		
58	3 5/8	7.00	2 or 3		
60	3 3/4	\$ 8.00	2 or 3		
62	3 7/8	8.50	2 or 3		
64	4	9.00	2 or 3		
66	4 1/8	10.00	2 or 3		
68	4 1/4	13.00	2 or 3		
70	4 3/8	15.50	2 or 3		
72	4 1/2	18.00	2 or 3		

MARVEL High-Speed-Edge Hole Saws are normally furnished without arbors.

### ARBORS

No.	Size Hexagon Shank (Inches)	Fits Hole Saws (Inches)	Price Each
1	1/2	5/8 to 1 1/8	\$4.00
2	1/2	1 1/4 to 4 1/2	6.00
3	3/4	1 1/4 to 4 1/2	6.00

No. 7 Extension for No. 1 or No. 2 Arbors. 1 1/2" hexagon shank, 12" long, for reaching inaccessible places. . . \$4.00  
High Speed Steel Pilot Drill, for Nos. 1, 2, or 3 Arbors. For replacement. only ..... \$1.50

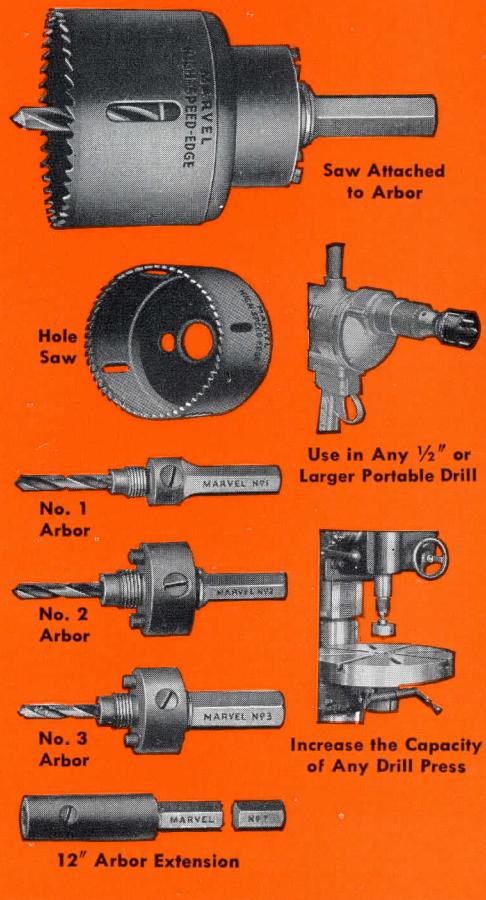
NOTE: All items on this page are priced in units and packed in standard packages of ten. List Prices are subject to trade and quantity discounts.

MARVEL High-Speed-Edge Hole Saws will cut holes from  $5/8$ " to  $4\frac{1}{2}$ " diameter through sheet metal or solid material up to a thickness of  $1\frac{1}{8}$ ". They will efficiently cut any machineable material—steel plates and pipes, stainless steel, brass, bronze, aluminum and wood.

They embody the same principle of construction, as MARVEL Hack Saw Blades. A cutting edge of high speed steel welded to a tough alloy steel body gives these saws the stamina to withstand the abuse to which these tools are usually subjected.

The arbors are fitted with a  $1/4$ " high speed steel pilot drill and have a solid hexagon shank that will fit any  $1/2$ " or larger 2 or 3 jaw check. The No. 2 and No. 3 arbors (for saws  $1\frac{1}{4}$ " diameter or larger) drive the saws with 2 drive pins which engage matching holes in the saw bodies. This drive does not require that the saws be screwed up tight against the arbor shoulder and permits some universal freedom to allow for misalignment. The arbors are heat treated and are practically indestructible.

MARVEL High-Speed-Edge Hole Saws produce big holes for little cost. They are used in portable power tool, drill press or lathe tail stock.



Increase the Capacity of Any Drill Press

# MARVEL SAWS

No matter what your cut-off requirements, there is a MARVEL Saw to fill your needs. In addition to the items illustrated and described on previous pages of this bulletin, there are MARVEL High Speed Saws for light duty, heavy duty, and automatic operations, two Giant Hydraulic Production Saws with 18" x 18" and 24" x 24" capacities, and a Universal Metal Cutting Band Saw Machine, all briefly described on this page.

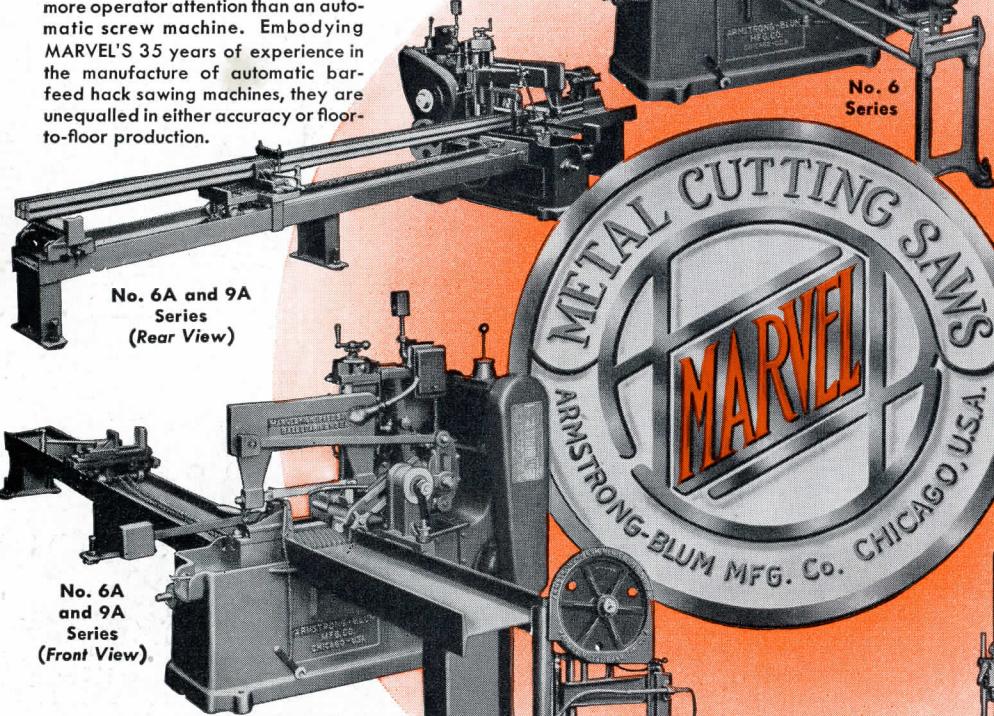
A completely illustrated and descriptive general catalog containing detailed specifications of all MARVEL products is available on request.

## HEAVY DUTY HIGH SPEED SAWS

The MARVEL No. 6 and No. 9 Series Saws Capacity 6" x 6" and 10" x 10" are the fastest cutting hack saws available. Heavy, all-ball-bearing construction permits continuous, full capacity operation at extremely high speed.

## AUTOMATIC PRODUCTION SAWS

The MARVEL No. 6A and No. 9A Series Saws are similar in design and construction to the No. 6 and No. 9 saws, and have in addition special production features which make them automatically feed, measure and cut-off identical lengths from single or nested bars with no more operator attention than an automatic screw machine. Embodying MARVEL'S 35 years of experience in the manufacture of automatic bar-feed hack sawing machines, they are unequalled in either accuracy or floor-to-floor production.

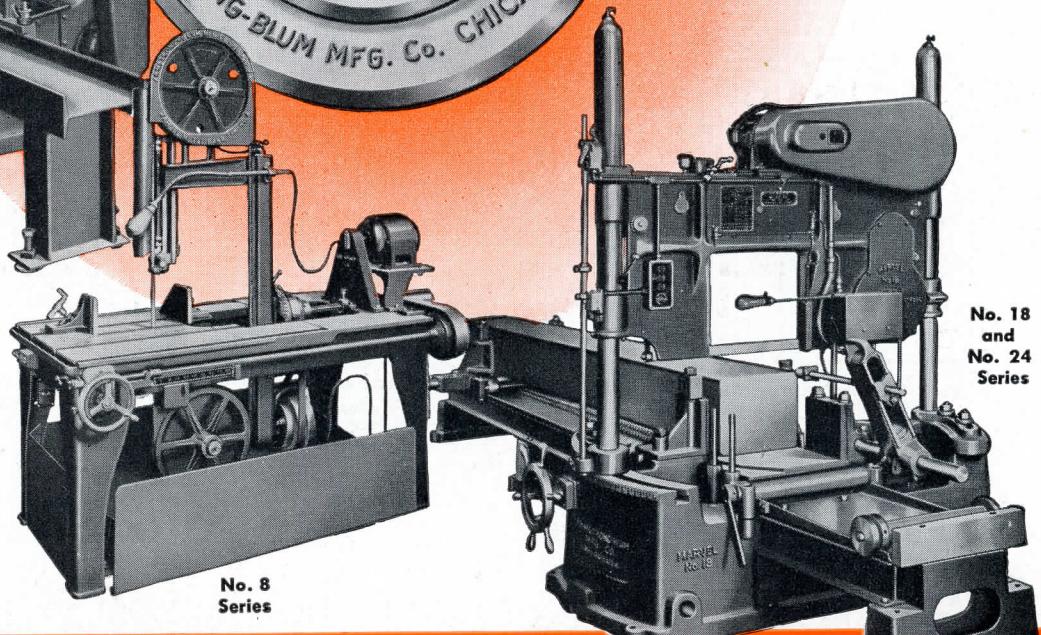


## MOST VERSATILE BAND SAW

The MARVEL No. 8 Series cuts anything from  $\frac{1}{8}$ " x  $\frac{1}{8}$ " to 18" x 18"; cuts at any angle from 45° right to 45° left. Power and hand feeds. Since complete saw column advances into the work this saw will cut-off, split, notch, mitre, and do innumerable jobs impossible on any other metal cutting band saw. The "universal" MARVEL No. 8 is the unequalled tool room saw.

## FREE TECHNICAL SERVICE AVAILABLE

Let us recommend the proper saw for your work. An outline of your cut-off work or hourly production requirements, including bar length, size and specification of steel, and cut length, will enable us to submit accurate time and cost studies of your work and recommendation of the most suitable MARVEL saw.



## LIGHT DUTY HIGH SPEED SAWS

The MARVEL No. 4B Series (capacity 6" x 6") will out-cut every hack saw or band saw on the market in its price class. Now improved with ball bearing saw frame slide, available with open leg or cabinet base, single or two speed drive, or four speed transmission.

## TWO GIANT HYDRAULIC SUPER HACK SAWS

The new MARVEL No. 18 (capacity 18" x 18") and No. 24 Series (capacity 24" x 24") giant saws have widened the use of hack saws to economically and rapidly cut off extremely large sized bars and blocks of the toughest steels. Simplicity of design, completely enclosed moving parts, and anti-friction bearing throughout enable these largest hack saws to stand up on continuous production cutting on heaviest and toughest work.

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